

ABSTRACT OF THE DISCLOSURE

5 The invention relates to an amplification optical
fiber that is suitable for amplification of signals in
the L-band, that has the effect of suppressing normal
four-wave mixing (FWM) occurring between signals, and
that has the structure for effectively suppressing
occurrence of non-degenerative FWM as well, and a fiber
optic amplifier including the same. A fiber optic
amplifier according to the present invention
10 incorporates an amplification optical fiber having a
core region doped with a rare earth element, a zero-
dispersion wavelength of not more than a wavelength of
pumping light, and an effective cutoff wavelength of
1.1 μm or more but not more than the wavelength of the
15 pumping light. Not only the normal FWM but also the
non-degenerative FWM is effectively suppressed by
application of the amplification optical fiber.